



Fig. 1

APPROVED	O.G.T.G.
BY.	CLASS:SUBCLASS
DRAFTSMAN	

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7001 VOM 8 8 075105

EcoRI RBS PelB leader
 131 GAATTCATTAAAGAGGAGAAATTAACCATGAAATACCTATTGCCTACGGCAGCCGCTGGCT
 1► M K Y L L P T A A A G
 PstI
 NcoI PvuII VH anti-CD3
 192 TGCTGCTGCTGGCAGCTCAGCCGCCATGGCGCAGGTGCAGCTGCAGCAGTCTGGGGCTGAA
 12► L L L L A A Q P A M A Q V Q L Q Q S G A E
 Frame-H1
 254 CTGGCAAGACCTGGGGCCTCAGTGAAGATGTCCTGCAAGGCTTCTGGCTACACCTTTACTAG
 33► L A R P G A S V K M S C K A S G Y T F T R
 CDR-H1 Frame-H2
 316 GTACACGATGCACTGGGTAAAACAGAGGCCTGGACAGGGTCTGGAATGGATTGGATACA
 53► Y T M H W V K Q R P G Q G L E W I G Y
 CDR-H2
 375 TTAATCCTAGCCGTGGTTATACTAATTACAATCAGAAGTTCAAGGACAAGGCCA
 73► I N P S R G Y T N Y N Q K F K D K A
 Frame-H3
 429 CATTGACTACAGACAAATCCTCCAGCACAGCCTACATGCAACTGAGCAGCCTGACATCTGAG
 91► T L T T D K S S S T A Y M Q L S S L T S E
 PstI CDR-H3
 491 GACTCTGCAGTCTATTACTGTGCAAGATATTATGATGATCATTACAGCCTTGACTAC
 112► D S A V Y Y C A R Y Y D D H Y S L D Y
 Frame-H4 CH1 HindIII Yol linker
 548 TGGGGCCAAGGCACCACTCTCACAGTCTCCTCAGCCAAAACAACACCCAAGCTTGAAGAAGG
 131► W G Q G T T L T V S S A K T T P K L E E G
 EcoRV
 MluI VL anti-CD3 Frame-L1
 610 TGAATTTTCAGAAGCACGCGTAGATATCGTGCTCACTCAGTCTCCAGCAATCATGTCTGCAT
 151► E F S E A R V D I V L T Q S P A I M S A
 PstI CDR-L1
 672 CTCCAGGGGAGAAGGTCACCATGACCTGCAGTGCCAGCTCAAGTGTAAGTTACATGA
 172► S P G E K V T M T C S A S S S V S Y M
 Frame-L2 CDR-L2
 729 ACTGGTACCAGCAGAAGTCAGGCACCTCCCCAAAAGATGGATTATGACACATCCAAA
 191► N W Y Q Q K S G T S P K R W I Y D T S K
 Frame-L3
 788 CTGGCTTCTGGAGTCCCTGCTCACTTCAGGGGCAGTGGGTCTGGGACCTCTTACTCTCTC
 211► L A S G V P A H F R G S G S G T S Y S L
 CDR-L3
 848 ACAATCAGCGGCATGGAGGCTGAAGATGCTGCCACTTATTACTGCCAGCAGTGGAGTAG
 231► T I S G M E A E D A A T Y Y C Q Q W S S
 Frame-L4 C kappa
 907 TAACCCATTTCAGCTTCGGCTCGGGGACAAAGTTGGAAATAAACCGGGCTGATACTGCACC
 250► N P F T F G S G T K L E I N R A D T A P
 BamHI c-myc epitope His6 tail
 967 AACTGGATCCGAACAAAAGCTGATCTCAGAAGAAGACCTAAACTCACATCACCATCACCATC
 270► T G S E Q K L I S E E D L N S H H H H H
 XbaI
 1029 ACTAATCTAGA
 291► H .

Fig. 2

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EcoRI RBS PelB leader
 1 GAATTCATTAAAGAGGAGAAATTAACCA**T**GAAATACCTATTGCCTACGGCAGCCGCTGGCTTGCTG
 1► M K Y L L P T A A A G L L
 NcoI ♦ VH anti-CD3 Frame-H1
 67 CTGCTGGCAGCTCAGCCGGCCATGGCGCAGGTGCAGCTGCAGCAGTCTGGGGCTGAACTGGCAAGAC
 14► L L A A Q P A M A Q V Q L Q Q S G A E L A R
 CDR-H1
 134 CTGGGGCCTCAGTGAAGATGTCTCTGCAAGGCTTCTGGCTACACCTTTACT**AGGTACACGATGCA**
 36► P G A S V K M S C K A S G Y T F T R Y T M H
 Frame-H2 CDR-H2
 198 CTGGGTAAAACAGAGGCCTGGACAGGGTCTGGAATGGATTGGAT**ACATTAATCCTAGCCGTGG**
 57► W V K Q R P G Q G L E W I G Y I N P S R G
 Frame-H3
 261 **TTATACTAATTACAATCAGAAGTTCAAGGACAAGGCCACATTGACTACAGACAAATCCTCCA**
 78► Y T N Y N Q K F K D K A T L T T D K S S
 323 GCACAGCCTACATGCAACTGAGCAGCCTGACATCTGAGGACTCTGCAGTCTATTACTGTGCAAGATA
 99► S T A Y M Q L S S L T S E D S A V Y Y C A R Y
 CDR-H3 Frame-H4
 390 **TTATGATGATCATTACAGCCTTGACTACT**GGGGCCAAGGCACCACTCTCACAGTCTCCTCAG
 121► Y D D H Y S L D Y W G Q G T T L T V S S
 CH1 Linker VL anti-CD19 Frame-L1
 452 **CCAAAACAACACCCAAAGCTTGGCGGT**GATATCTTGCTCACCCAAACTCCAGCTTCTTTGGCTGTG
 142► A K T T P K L G G D I L L T Q T P A S L A V
 CDR-L1
 517 TCTCTAGGGCAGAGGGCCACCATCTCCTGCA**AGGCCAGCCAAAGTGTTGATTATGATGGTGA**
 164► S L G Q R A T I S C K A S Q S V D Y D G D
 Frame-L2
 579 **TAGTTATTTGAACT**TGGTACCAACAGATTCCAGGACAGCCACCCAAACTCCTCATCTAT**GATGCA**
 184► S Y L N W Y Q Q I P G Q P P K L L I Y D A
 CDR-L2 Frame-L3
 643 **TCCAATCTAGTTTCT**TGGGATCCCACCCAGGTTTAGTGGCAGTGGGTCTGGGACAGACTTCACCC
 206► S N L V S G I P P R F S G S G S G T D F T
 CDR-L3
 707 TCAACATCCATCCTGTGGAGAAGGTGGATGCTGCAACCTATCACTGT**CAGCAAAGTACTGAGGA**
 227► L N I H P V E K V D A A T Y H C Q Q S T E D
 Frame-L4 C kappa NotI
 771 **TCCGTGGACGTTCCGGTGGAGGCACCAAGCTGGAATCAAACGGGCTGATGCT**GCGGCCGCTGGATCC
 248► P W T F G G G T K L E I K R A D A A A A G S
 c-myc epitope His6 tail BgIII
 838 **GAACAAAAGCTGATCTCAGAAGAAGACCTAA**ACTCACATCACCATCACCATCACTAAAGAT
 271► E Q K L I S E E D L N S H H H H H H .
 899 CT

Fig. 3

BglIII RBS Pel B leader
 1 AGATCTATTAAAGAGGAGAAATTAACCATGAAATACCTATTGCCTACGGCAGCCGCTGGCTTGC
 1► M K Y L L P T A A A G L
 NcoI ♦ VH anti-CD19 Frame-H1
 65 TGCTGCTGGCAGCTCAGCCGGCCATGGCGCAGGTGCAGCTGCAGCAGTCTGGGGCTGAGCTGGT
 13► L L L A A Q P A M A Q V Q L Q Q S G A E L V
 CDR-H1
 129 GAGGCCTGGGTCCTCAGTGAAGATTTCTGCAAGGCTTCTGGCTATGCATTAGCTACTG
 34► R P G S S V K I S C K A S G Y A F S S Y W
 Frame-H2
 192 GATGAACTGGGTGAAGCAGAGGCCTGGACAGGGTCTTGAGTGGATTGGACAGATTTGGCCCT
 55► M N W V K Q R P G Q G L E W I G Q I W P
 CDR-H2
 253 GGAGATGGTGATACTAACTACAATGGAAAGTTCAAGGGTAAAGCCACTCTGACTGCA
 76► G D G D T N Y N G K F K G K A T L T A
 Frame-H3
 310 GACGAATCCTCCAGCAGAGCCTACATGCAACTCAGCAGCCTAGCATCTGAGGACTCTGCGGTCT
 95► D E S S S T A Y M Q L S S L A S E D S A V
 CDR-H3
 374 ATTTCTGTGCAAGACGGGAGACTACGACGGTAGGCCGTTATTACTATGCTATGGACT
 116► Y F C A R R E T T T V G R Y Y Y A M D
 Frame-H4 CH1 Linker
 431 ACTGGGGTCAAGGAACCTCAGTCACCGTCTCCTCAGCCAAAACAACACCCAAAGCTTGGCGGT
 135► Y W G Q G T S V T V S S A K T T P K L G G
 VL anti-CD3 Frame-L1
 493 GATATCGTGCTCACTCAGTCTCCAGCAATCATGTCTGCATCTCCAGGGGAGAAGGTCACCATGA
 156► D I V L T Q S P A I M S A S P G E K V T M
 CDR-L1 Frame-L2
 557 CCTGCAGTGCCAGCTCAAGTGTAAGTTACATGAACTTGGTACCAGCAGAAGTCAGGCACC
 177► T C S A S S S V S Y M N W Y Q Q K S G T
 CDR-L2
 616 TCCCCCAAAGATGGATTTATGACACATCCAAACTGGCTTCTTGGAGTCCCTGCTCACTTC
 197► S P K R W I Y D T S K L A S G V P A H F
 Frame-L3
 676 AGGGGCAGTGGGTCTGGGACCTCTTACTCTCTCACAATCAGCGGCATGGAGGCTGAAGATGCTG
 217► R G S G S G T S Y S L T I S G M E A E D A
 CDR-L3 Frame-L4
 740 CCACTTATTACTGCCCAGCAGTGGAGTAGTAACCCATTACGTTCCGGCTCGGGGACAAAG
 238► A T Y Y C Q Q W S S N P F T F G S G T K
 C kappa c-myc epitope
 799 TTGGAAATAAACCGGGCTGATACTGCACCAACTGGATCCGAACAAAAGCTGATCTCAGAA
 258► L E I N R A D T A P T G S E Q K L I S E
 His6 tail XbaI
 859 GAAGACCTAAACTCACATCACCATCACCATCACTAATCTAGA
 278► E D L N S H H H H H H .

Fig. 3 (Fortsetzung)